Response of Northern Indiana Public Service Company
To Commission Questions of April 12, 2006

I. Fuel Sources

Amendments to PURPA; Sec. 1251; amending 16 USC 2621(d) by adding (12) - Fuel Sources
"Each electric utility shall develop a plan to minimize dependence on 1 fuel source and to ensure that the electric energy it sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies."

1) Do the Indiana Integrated Resource Plan and Certificate of Need processes provide for a sufficient method to insure that utilities develop a plan to minimize dependence on one fuel source? Please explain.

   The Integrated Resource Plan (IRP) and Certificate of Need (CPCN) processes are presently interpreted in a manner that focuses on meeting customer needs in a cost-effective manner while also considering other methods for providing reliable, efficient and economical electric service.

   The IRP and CPCN processes are broad enough to allow consideration of factors other than cost. 170 IAC 4-7-8(4) requires a utility to submit, as part of its IRP, information that demonstrates "that the utility's resource plan utilizes, to the extent practical, all economical load management, conservation, nonconventional technology relying on renewable resources, cogeneration, and energy efficiency improvements as sources of new supply." In addition, Section 8(5) requires a utility to "discuss how the utility's resource plan takes into account the utility's judgment of risks and uncertainties associated with potential environmental and other regulations." These provisions may provide the needed flexibility to allow the use of alternative fuel sources to the extent that is practical and necessary, and in accordance with the standard proposed in EPAct05.

2) How could the IURC best ensure that the electric energy sold to consumers is generated using a diverse range of fuels and technologies, including renewable technologies?

Through the IRP and CPCN processes, the IURC can ensure that utilities fully consider all available fuel and technology options. However, cost recovery issues highlighted in the next question may undermine efforts to increase the utilization of diverse fuels and technologies when those fuels and technologies are not the lowest cost option.

3) Is the requirement of IC 8-1-2-42(d)(1) compatible with a requirement to ensure the electric energy a utility sells to consumers is generated using a diverse range of fuels and technologies, including renewable technologies? Would summary FAC proceedings provide for timely review if such a requirement were implemented? Please explain.

IC 8-1-42(d)(1) requires that "the electric utility has made every reasonable effort to acquire fuel and generate or purchase power or both so as to provide electricity to its retail customers at the lowest fuel cost reasonably possible." Purchases of energy that are based on diverse fuels and technologies are often more expensive and cannot compete economically with traditional purchase power alternatives in a least-cost planning sense. Accordingly, those higher costs may not be recoverable through the FAC mechanism. Utilities need assurance from the Commission that the higher costs associated with the purchase of energy based on diverse fuels and technologies will be recoverable through a quarterly mechanism that is similar to the FAC mechanism. Recovery of these costs in quarterly proceedings would provide recovery as timely as the recovery of traditional fuel and purchased power costs.

4) Does today's energy market environment provide sufficient incentive for utilities to diversify their fuel sources? Please explain.

Utilities are required to provide electricity to its retail customers at the lowest fuel cost reasonable possible. In today's Midwest ISO Day 2 energy market, electric energy is made available to power purchasers from numerous sources based upon competitive bidding and locational marginal pricing. To the extent alternative fuel resources, including renewable energy technologies, meet reliability, safety and environmental standards, and meet the requirement for the lowest fuel cost reasonably possible, these alternative resources and renewable technologies should be considered and developed by utilities or other power suppliers.

II. Fossil Fuel Generation Efficiency

Amendments to PURPA; Sec. 1251; amending 16 USC 2621(d) by adding (13) -Fossil Fuel Generation Efficiency
"Each electric utility shall develop and implement a 10-year plan to increase the efficiency of its fossil fuel generation."

1) What, if any specific plans has your utility put in place to drive increase fossil fuel generation efficiency? How do these plans differ from what was done in the past? How do you expect these plans to change over the next ten years?

NIPSCO includes unit efficiency or heat rate improvement as one of the evaluation criteria used in the evaluation of future project expenditures. The end result of the evaluation process is a ranking of projected projects for the next budget year based on the project's cost to benefit ratio.

It should be noted that generating unit efficiencies have been adversely affected by the many steps taken to meet environmental regulations. This trend can be expected to continue as we seek ways to meet future regulations. Operating efficiencies are also adversely affected by operating at the high automatic generation control (AGC) levels that are required on our system to meet customer load requirements.

A series of capital projects have been recently completed which have resulted in improved operational efficiency. These include unit control replacements and the addition of artificial intelligence systems on the majority of our generating units. Several of these systems have yet to be installed but are either underway or scheduled for implementation over the next several years. We are committed to a turbine rotor replacement on Michigan City Unit 12, which is scheduled for completion in 2008. This project will result in improved turbine efficiency.

Our regular planned annual maintenance program focuses on maintaining equipment reliability and restoring the operational efficiency of generating units through scheduled turbine and boiler overhauls as well as routine maintenance work as required on other plant equipment. Examples include cooling tower fill replacement, feed water heater replacements, the replacement of air heater baskets, control tuning, coal mill and coal crusher overhauls.

2) Does today's energy market environment provide sufficient incentive for utilities to increase the efficiency of its fossil fuel generation? Please explain.

Within the sole context of today's energy marketplace, there is a level of incentive to improve the operating efficiency of fossil fuel generation because of the existence of the Midwest ISO Day 2 energy market. Insofar as a utility can improve the operating efficiency of its fossil fuel generation, then the energy market does provide an incentive as long as the marginal cost of incremental efficiency is less than the marginal cost of competing generation in the marketplace. Nonetheless, there are other contributing factors that counter this energy market environment. For example, the ever-increasing environmental restrictions on fossil fuel generation may reduce operating efficiencies. A major challenge exists in today's operating environment with the fact that environmental compliance projects may have a negative impact on a fossil fuel unit's operating efficiency.

3) Provide the historical annual operating efficiencies for the past 10-years for each of your fossil fuel generation plants and a similar cumulative value for your utility.

See Exhibit A attached.

III. Smart Metering

Amendments to PURPA; SEC. 1252. Amending 16 U.S.C. 2621(d)) by adding: (14) Time-based Metering and Communications-
(A) Not later than 18 months after the date of enactment of this paragraph, each electric utility shall offer each of its customer classes, and provide individual customers upon customer request, a time-based rate schedule under which the rate charged by the electric utility varies during different time periods and reflects the variance, if any, in the utility's costs of generating and purchasing electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications technology.
(B) The types of time-based rate schedules that may be offered under the schedule referred to in subparagraph (A) include, among others-
(i) time-of-use pricing whereby electricity prices are set for a specific time period on an advance or forward basis, typically not changing more often than twice a year, based on the utility's cost of generating and/or purchasing such electricity at the wholesale level for the benefit of the consumer. Prices paid for energy consumed during these periods shall be pre-established and known

to consumers in advance of such consumption, allowing them to vary their demand and usage in response to such prices and manage their energy costs by shifting usage to a lower cost period or reducing their consumption overall;
(ii) critical peak pricing whereby time-of-use prices are in effect except for certain peak days, when prices may reflect the costs of generating and/or purchasing electricity at the wholesale level and when consumers may receive additional discounts for reducing peak period energy consumption;
(iii) real-time pricing whereby electricity prices are set for a specific time period on an advanced or forward basis, reflecting the utility's cost of generating and/or purchasing electricity at the wholesale level, and may change as often as hourly; and
(iv) credits for consumers with large loads who enter into pre-established peak load reduction agreements that reduce a utility's planned capacity obligations.
(C) Each electric utility subject to subparagraph (A) shall provide each customer requesting a time-based rate with a time-based meter capable of enabling the utility and customer to offer and receive such rate, respectively.
(D) For purposes of implementing this paragraph, any reference contained in this section to the date of enactment of the Public Utility Regulatory Policies Act of 1978 shall be deemed to be a reference to the date of enactment of this paragraph.
(E) In a State that permits third-party marketers to sell electric energy to retail electric consumers, such consumers shall be entitled to receive the same time-based metering and communications device and service as a retail electric consumer of the electric utility.
(F) Notwithstanding subsections (b) and (c) of section 112, each State regulatory authority shall, not later than 18 months after the date of enactment of this paragraph conduct an investigation in accordance with section 11 5(i) and issue a decision whether it is appropriate to implement the standards set out in subparagraphs (A) and (C)

1) Please describe the present status of time-based metering and communications within your customer base. Include detail by customer class (e.g. residential, commercial, industrial) relating to tariff offerings, smart meters deployed, means of communicating collected data with participating customers, and capital invested in infrastructure.

NIPSCO presently offers its commercial and industrial customers time-of-use and real-time pricing tariffs. However, those tariffs do not rely on time-based metering technology. Indicating Demand meters and Load Profile meters are used for Commercial and Industrial customers.

NIPSCO does not presently offer time-based metering to any of its customer classes. The above time-of-use and real-time pricing tariffs, when combined with the off-peak pricing that is available to major

industrial customers, has resulted in a beneficial system-wide load factor. As a result, the adoption of time-based metering and rates for *residential* customers may not lead to significant improvements in NIPSCO's load factor, however, no study has been done in this regard.

NIPSCO has 9,500 Indicating Demand meters in service at an average installed cost of $580 per meter. These meters are used for a time-based rate which has a cost component based on the customer's maximum demand during any 30 consecutive minutes during the month. The meters do not have a real-time clock, only an internal timer which resets every 30 minutes.

NIPSCO has 1,054 Load Profile (time-of-use) meters in service at an average installed cost of $1,000. These meters are read manually every month, except for 120 meters equipped with cell phones at an additional cost of $1000. There are also an additional 550 Load Profile (time-of-use) meters installed at Commercial and Industrial customer locations that are used for load research.

Below is a list time-of-use and real-time pricing tariffs:

Rate 824 - General Service Large Use
Rate 825 - Metal Melting Service
Rate 826 - Off Peak Service
Rate 832 - Industrial Power Service
Rate 833 - Industrial Power Service
Rate 835 - Interruptible Industrial Power Service
Rate 836 - Interruptible Power Service
Rate 845/846 - Industrial Firm Incremental Power Service

In addition to the industrial metering mentioned, NIPSCO has installed 880 residential drive-by automated meters developed by Itron. These meters are not equipped for time-of-day measurement and are installed in hard to read locations (such as apartment complexes) to expedite monthly meter reading. Half of these meters are gas meters and half are electric meters.

2) Describe the methods utilized presently or historically to communicate tariff/program opportunities to customers. Do you have plans to enhance marketing of these opportunities? Please explain.

A) NIPSCO uses a combination of techniques to communicate and market retail products and services to its residential and small commercial customers. NIPSCO utilizes bill inserts, a quarterly

newsletter and its web site. NIPSCO also utilizes targeted direct mail at certain times during the year to solicit new customers for certain retail programs. NIPSCO plans to continue its existing communication and marketing techniques at the current level.

B) Tariff/program opportunities are communicated to large commercial and industrial customers via one-on-one meetings and or letters/e-mails to individual customers from assigned representatives of the Company. There are no plans to change this method for these customers.

3) Detail any cost/benefit studies conducted for your service area regarding time-based metering communication deployment and tariffs. Detail should at a minimum include cost and demand response assumptions.

NIPSCO has not conducted any cost/benefit studies concerning the use of time-based meters and associated rates.

4) Detail the response to any customer surveys you may have conducted in your service area regarding time-based metering and rates. If no surveys have been conducted, what customer input method does your utility employ to evaluate customer demand for time-based metering and rate offerings?

NIPSCO has not conducted any surveys concerning the use of time-based metering and associated rates. Telephone surveys have been conducted, from time to time, to evaluate customer satisfaction.

5) What, if any, regulatory barriers exist which limit the expansion of time-based metering and rates?

NIPSCO has no experience from which to gauge customers' willingness to alter their consumption habits in response to time-based metering and rates. Time-based metering and rates present consumer education challenges, and uncertainties about the elasticity of consumer demand. It is reasonable to expect that attempts to design time-based rates will involve assumptions about consumer behavior that will prove wrong. Any transition to time-based rates should include periodic (monthly or quarterly) adjustments to the rate design so that the utility would not lose revenues while the utility, and its customers, learn a new way of supplying and consuming energy. Utilities should also be permitted to recover infrastructure costs and any other costs associated with the adoption of time-based metering and rates.

6) Can time-of-use rates be effectively implemented without the use of smart metering? Please describe any new or expansion of existing time-of-use rates your utility plans to implement in the next 24 months.

By definition of "time-of–use," it is necessary to know how much a customer uses during a specific period of time. Without an intelligent meter device that measures both "time" and "consumption," it would be difficult to effectively deploy an effective Rate Program. NIPSCO plans to research the implementation of time-of-use meters over the next 24 months.

NET HEAT RATES 1996 - 2006 (APR YTD)

Exhibit A

STATION	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Michigan City	11,224	10,809	10,816	10,918	10,816	10,650	10,659	10,712	10,677	10,622
D. H. Mitchell	11,162	11,312	11,024	11,781	11,301	11,705	0	0	0	17,389
Bailly	10,244	10,390	10,470	10,730	10,888	11,003	10,986	11,238	10,805	10,846
R. M. Schahfer	11,476	11,195	11,097	11,152	11,269	11,731	11,215	11,148	11,294	11,184
TOTAL SYSTEM	11,169	11,006	10,939	11,117	11,138	11,440	11,039	11,091	11,084	11,036

Note: The station heat rates include all fossil units. This includes gas fired combustion turbines. The heat rate at DHMS in 2005 is for the Unit 9 combustion turbine.